P. DUNN & T. HARRIS.

MACHINE FOR FINISHING HORSESHOE NAILS.

No. 188,239. Patented March 13. 1877.

Fig. 1.

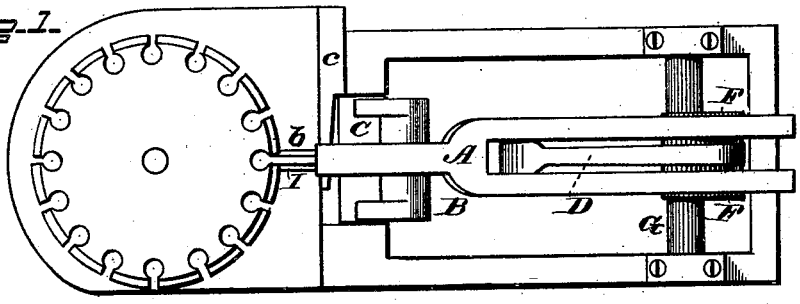


Fig. 2.

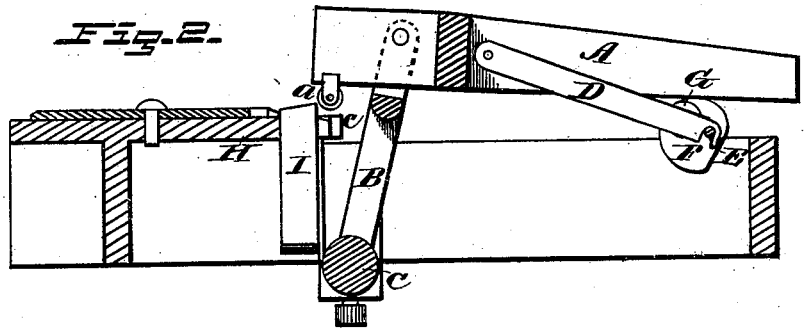


Fig. 3.

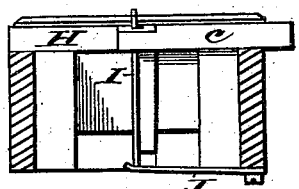
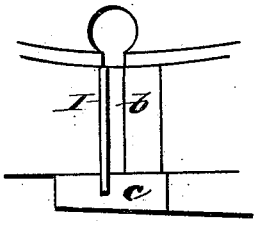


Fig. 4.



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UNITED STATES PATENT OFFICE.

PATRICK DUNN AND THOMAS HARRIS, OF CÔTE ST. PAUL, QUEBEC, CANADA.

IMPROVEMENT IN MACHINES FOR FINISHING HORSESHOE-NAILS.

Specification forming part of Letters Patent No. **188,239**, dated March 13, 1877; application filed January 29, 1877.

To all whom it may concern:

Be it known that we, PATRICK DUNN and THOMAS HARRIS, of Côte St. Paul, Province of Quebec, Canada, have invented certain new and useful Improvements in Machines for Finishing Horseshoe-Nails; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to mechanism for reducing and stiffening horseshoe-nail blanks: and this invention consists in a lever carrying a roller that is moved longitudinally over the blank from head to point by means of a cam or cams, and combined with a sliding or vertically-reciprocating guide and stationary grooved bed-piece, for holding the nail or blank in position during the operation of the lever and roller.

Figure 1 of the annexed drawing is a top plan view of a machine embodying our improvements. Fig. 2 is a central vertical longitudinal section thereof; Fig. 3, a cross-section, showing the guide in front elevation; and Fig. 4, a top view of the guide and bed-plate enlarged.

The letter A designates a bifurcated or otherwise constructed lever adapted to be moved in a practically horizontal, or nearly such, plane and sustained by a yoke, B, which constitutes the lever's fulcrum, and which is screwed near the forward end of the lever and rises from a shaft, C. A pitman, D, is attached eccentrically by a pin, E, to a cam or cams, F, on a shaft, G, and is connected with the lever A at such point as will enable it to properly move the said lever. The cam or cams F are arranged beneath the lever, and act so as to depress or impart a downward pressure to the forward end of said lever. The forward end of this lever A is provided with a roller, *a*. H is a frame, in which a stationary bed-piece, *b*, is fixed. Within a vertical groove or slot alongside of this bed-piece is arranged a plate, I, about equal in horizontal length to the length of nail-blank. This plate I is supported upon a spring, J, and is held in place by a finger, *c*, or other means. The spring J serves to keep the plate I in its most elevated position. The upper edge of the plate is inclined.

The operation is as follows: The nail-blank having been fed to the bed *b*, the plate I serves to assist in holding it in position, and for this reason the said plate is denominated a guide. Motion being imparted to the shaft G, the pitman acts to move forward the lever over the blank, and when it has reached the end of its forward stroke the cam or cams F act to depress the roller *a*, and thereby also the guide I, and cause said roller to bear with great pressure upon the nail-blank. The return stroke or motion of the lever now begins, and the roller bearing upon the blank in its backward or reverse movement, said blank is reduced to the required thickness and is stiffened ready for driving, except that it is yet to be pointed.

As above specified, the depressing of the roller end of the lever causes the sinking or downward movement of the guide I, so as to permit the roller to act on the blank. At the completion of the reverse movement of the lever the roller clears the guide, and the guide's spring J acts to elevate it again ready to assist in holding the next blank in the bed. It will thus appear that said guide has an automatic action.

We have thus described the simplest form of our mechanism, but it may be here mentioned that the spring J may be replaced by an automatically-operated lever for elevating it, or throwing it up; and, too, the lever A may be operated directly by the cam or cams, instead of through the pitman; and a connecting-link or jointed lever may be substituted for the yoke.

What we claim is—

1. The combination of the lever A, roller *a*, pitman D, cam or cams F, and yoke B, substantially as described.

2. The combination of the frame H, stationary bed-piece *b*, inclined guide I, and drawing-lever A, provided with roller *a*, substantially as and for the purpose specified.

In testimony that we claim the foregoing as our own we affix our signatures in presence of two witnesses.

PATRICK DUNN.
THOMAS HARRIS.

Witnesses:
I. A. CHAURET,
E. A. PAIRET.